

-4-

USSN: 10/049,471

**REMARKS**

Claims 1-14 are cancelled.

Claim 15 has been amended to further clarify the method as claimed .

Claims 15-20 stand rejected under 35 USC § 103(a), as being unpatentable over U. S. Patent No. 5,595,667 to Rieber (the "Rieber patent") in view of U. S. Patent No. 4,048,068 to Hirs (the "Hirs patent") for the reasons cited by the Examiner.

Under the detailed description of the application, it states placing the crumb rubber in the downflow filter has the following effects. The following is a direct quote from the specification of the effects.

"The crumb rubber media is compressible which allows the porosity between rubber particles to decrease through the filter bed. The crumb rubber media compresses as headloss increases, allowing for better effluent quality late in the run. The crumb rubber media allows greater depth filtration. The crumb rubber media can be used at high filter rates, greater than 20 gpm/ft<sup>2</sup>. The crumb rubber media performs similarly to other traditional filter media in respect to turbidity and total suspended solids removal."

"The compressible of the crumb rubber media reduces the problem associated with conventional media dramatically by creating the inverse of this porosity gradient. The amount of compression increases with pressure, therefore compression increases and porosity decreases from the top to the bottom of the filter bed, as shown in Fig. 2. This allows the larger solids to be removed in the top layer of the filter and the smaller solids removed in the bottom layer. Therefore, crumb rubber media allows greater depth filtration, lower head loss, and longer filter runs."

-5-

USSN: 10/049,471

Nowhere is it taught or even suggested in the Rieber patent or the Hirs patent the method of filtering liquid through a downflow filter having stacked crumb rubber to produce the desired effect of the stacked crumb rubber as described in the above application. The Hirs patent describes a downflow filter with layers of various granular materials. All granular materials described in the Hirs patent, including granulated shells of black walnut, granulated anthracite coal, and sand, are rigid materials. These materials can not be compressed due to stacking. In the Rieber patent, crumb rubber is only listed as a filter material for its quality of being able to be burned as a fuel after it has been used in the non-downflow filter. Therefore, claims 15-20 are patentable over the combination of the Rieber and Hirs patents.

In view of the aforementioned remarks and amendments, it is believed that claims 1-20 are in condition for allowance and allowance of these claims is respectfully requested.

**Please change the correspondence address to the one shown below.**

Respectfully submitted,



John J. Elnitski, Jr.  
Registration No. 39,968

225 A Snowbird Lane  
Bellefonte, PA 16823  
(814) 355-7646